

Weather Information Services Supporting Civilian UAS Operations, Phase I

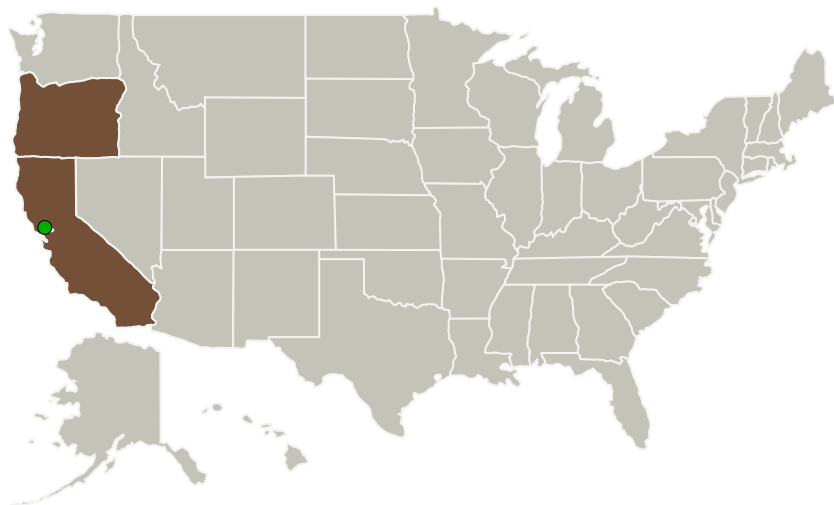
Completed Technology Project (2013 - 2013)



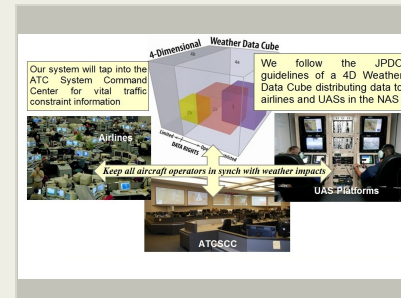
Project Introduction

We build a system that supports the weather information needs of Unmanned Aircraft Systems (UAS) planning to fly in the National Airspace System (NAS). This weather information service will supply information to UAS Ground Control Stations (GCSs) from the Next Generation Air Transportation System (NextGen) 4D Weather Data Cube, the Single Authoritative Source (SAS) for aviation weather information, and associated modules which will determine the impacts that weather will have on the UAS. A centralized distribution system, based on a Service Oriented Architecture (SOA), provides weather and constraint information to airlines and pilots (including UAS operators) - the design follows JPDO guidelines. In NextGen, the design goal is for all aircraft flying in the NAS (including UASs) to have a consistent set of weather constraints.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
The Innovation Laboratory, Inc.	Lead Organization	Industry Women-Owned Small Business (WOSB)	Portland, Oregon
● Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California



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Primary U.S. Work Locations

California

Oregon

Project Transitions



May 2013: Project Start

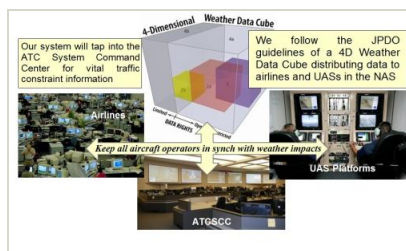


November 2013: Closed out

Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/138567>)

Images



Project Image

Weather Information Services supporting Civilian UAS Operations (<https://techport.nasa.gov/image/134798>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

The Innovation Laboratory, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Jimmy Krozel

Co-Investigator:

Jimmy Krozel

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Technology Maturity (TRL)

Start: **1**
Current: **3**
Estimated End: **3**



Technology Areas

Primary:

- TX16 Air Traffic Management and Range Tracking Systems
 - └ TX16.4 Architectures and Infrastructure

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System